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Book reviews

Handbook of Water Economics Principles and Practices, by Colin Green. Published by John Wiley and Sons, Chichester, UK, 2003, pp. vi + 443, ISBN 0 417 98571 6 (hdbk), $A222.95.

Water resource allocation and attempts to change the institutions that have emerged to share water between competing users has assumed profound significance in the political and environmental debate in Australia. Against a background of significant water reform over the past decade (and arguably beyond), unprecedented drought and growing community awareness of the need to 'manage' water rather than 'develop' it, a book detailing economic principles and practices for managing water offers readers a useful insight into the current milieu.

Green provides a review of water economics over 23 chapters and, although not specified in the text, these would appear to be broadly organised around three themes. Chapters 1–9 examine the theoretical role of economics as a discipline that endeavours to understand the motivations and mechanics of decisions involving choices between risks. Institutions and the processes for managing resource choices is the theme that pervades Chapters 10–13. These chapters provide a bridge between the theory of the first section and the practices examined in the last section. The final 10 chapters examine issues appertaining to the use of water resources by humans. These issues are considered in the context of the principles introduced in earlier chapters.

Despite the relatively innocuous chapter titles, the first section (Chapters 1–9) persuasively challenges important elements of the conventional economic wisdom encapsulated in the neo-classical paradigm. Green specifically defines economics as the application of reason to choice and observes that choice comprises two essential ingredients; conflict and uncertainty. On the basis of these definitions, the role of the economy is described in a manner sympathetic to the New Institutional Economics, with an emphasis on the part played by social organisations and relations. This approach then provides a foundation for criticising the use of neo-classical economic theory as a vehicle for describing how collective choices are made within the economy. More specifically, Green contends that the neo-classical rationale is flawed insofar as it presumes that collective choices are based on similar mechanisms as those employed by individuals confronting purchase decisions between priced goods. Conventional economic analysis also

assumes that individuals would accept societal decisions made along similar lines and ignores the problem of how individuals actually learn to make choice decisions. A more appropriate framework is then developed throughout Chapters 4, 5 and 6 where the role of household and societal choices is considered along with such dimensions as the timing of choices, choice strategies and decision rules.

Costs and their unique characteristics in the context of the water sector are examined in Chapter 7. Here, Green again draws attention to the limitation of the textbook approach to costs when applied to water-related projects. These limitations emanate from economies of scale and scope, and the high information and transaction costs of change in the water sector. An institutional perspective on costs is also briefly proffered in this chapter.

In Chapter 8 the author endeavours to provide an overview of the role of the relationships embodied in exchange. The challenge for Green in this chapter is to provide some insight into an area largely ignored by neo-classical economics, which he claims 'focuses exclusively on the content of the exchange to the exclusion of the nature of the relationship and assumes that the nature of the relationship is irrelevant to the content of the exchange' (p. 97). Arguing that property rights are more about rights over other individuals than rights over property, Green uses this chapter to examine the range of entitlements and obligations deriving from exchange. The legal dimensions encompassed in differing arrangements and the social context of exchange decisions are also given attention in this chapter.

The first thematic section of the book concludes with a chapter examining the concept of 'better decisions'. Given the criticisms of the neo-classical approach proffered in earlier chapters, Green argues that an alternative to normative efficiency measures is required to adjudge decisions. The criteria employed by Green focus largely on the decision process, as he contends it is impossible to know whether a 'correct decision' has been made at the time of adoption. In this context a range of heuristics from the published literature on outcome and procedural equity are reviewed. Whilst canvassing a variety of choice considerations from an equity perspective, Green also acknowledges that 'better decisions' are themselves a function of our capacity to develop 'better options'. The standards for project appraisal tools are also briefly examined in this chapter in light of the requirement to choose decision aids.

The second thematic section comprises 4 chapters (10–13) covering institutions for managing resources, approaches for inducing change, techniques for evaluating impacts, and methods of project appraisal. Collectively, these chapters provide valuable guidance on the complexity of water-specific decisions and illustrate how the choice framework developed in earlier chapters comes into play. The depth of treatment of these topics

is ideally suited to those seeking a broad overview of techniques rather than detailed instruction on their application in particular circumstances.

In Chapter 14 the third theme is introduced by considering general issues relating to human capture and use of water. Here, the basic choice in water resource management is described as being either a decision to enhance supply, reduce demand or a combination of both. Discourse in this chapter aims at providing background on hydrological considerations and catchment dynamics, which are crucial to understanding and predicting demand.

The interest in demand management continues in Chapter 15. Whilst approached predominantly from an urban user's perspective, this chapter also contains lessons that can be applied in irrigation contexts. The theoretical underpinnings of the technique developed by Rogers *et al*. (1998) are addressed in this chapter. This involves establishing charges for abstraction when there is a fixed quantity of water that has to be allocated between competing uses, each generating externalities. Whilst shedding some light on the problem of determining appropriate prices to manage demand, Green contends that the Rogers *et al*. (1998) model is still plagued by operational constraints and suggests alternative practical approaches (p. 256).

Chapters 16–22 provide comment on the economics of specific water issues including sanitation, hydroelectricity, flood management and navigation. The depth and extent of coverage of each of these topics varies. Generally, the exposition aims to illustrate the complexity of the topics and highlights the choice dilemmas that apply to each issue. This approach provides the basis for briefly examining the implementation of integrated catchment management in Chapter 23. The role of economics to inform integrated catchment management is briefly canvassed.

In sum, Green has admirably attempted to cover an eclectic of water issues and yet provide a consistent framework for analysis. The text is suitable for graduate students, policy advisers and water resource managers, although those with limited background in the principles of neo-classical economics may find the first section hard going. The last section is organised in a manner that provides a succinct overview of key issues and therefore represents a valuable resource to those involved in the water sector.

Reference

Rogers, P., Bhatia, R. and Huber, A. 1998 'Water as a social and economic good: how to put the principle into practice', TAC background paper no. 2, Global Water Partnership, Stockholm.

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Promoting farm non-farm linkages for rural development: case studies from Africa and Latin America, by B. Davis, T. Reardon, K. Stamoulis & P. Winters (eds). Published by the Food and Agricultural Organisation, Rome, 2002, pp. x + 198, ISBN 92 5 104868 1 (pbk), $US18.

Globalisation has led to rapid increases in agro-industrial activity in developing countries over the last two decades as new trading opportunities favour large scale processing and marketing. Capital for expansion has come from both international and domestic sources and has led to a restructuring of agricultural enterprises, particularly for high value food products. In this new book a framework for analysis of the effects of these changes on rural welfare is developed and six case studies, three from Latin America and three from Africa, are presented based on the framework. A focus of the book is contract farming involving domestic and foreign agribusiness firms forming contractual arrangements with individual smallholders to supply products in return for assistance with inputs and assurances of access to markets.

The book is part of a generational change in the published literature and departs from previous studies of contract farming and other types of agro-industrial smallholder relationships in two important ways. First, previous work has focused mainly on welfare of smallholders directly involved in contracts and often ignored so-called 'second round effects'. The authors advocate broader approaches to analysis of structural change that incorporates its effects off the farm as well as on. Second, the authors stress the importance of non-farm activities in consideration of rural welfare. Between 30 and 40 per cent of smallholder income in Asia, Africa and Latin America is from the non-farm rural sector.

The first chapter, written by the editors, outlines the objectives of the book and provides a general framework for analysis. The objectives are: (i) to characterise spin-off activities from various types of farm contracting on income, employment and growth in each study area, (ii) to describe and synthesise the common elements in linkages between the farm and non-farm rural sectors across the case studies, and (iii) to devise policies and programs for NGOs, developing country governments and donor governments.

Spin-off activities are characterised in a traditional linkage framework based on upstream and downstream production linkages and expenditure linkages to consumption and investment. Taxation linkages to government expenditure, presumably important, are ignored. The framework is approached from three perspectives: (i) an institutional description of the rules of the game or the forms that contractual arrangements take, (ii) an organisational perspective describing relationships between groups influenced by contracting arrangements, and (iii) a technological perspective that takes account of physical constraints in the agricultural systems under study.

The following six chapters of the book present case studies from Latin America and Africa. The case studies are similar to each other in approach, being based on household surveys, interviews with agribusiness firms and reference to locality data on incomes and social factors. Some chapters, such as one on French bean contracts in Kenya and another on Cassava contracts in Ghana, are focused on single commodities while others, such as the chapter on general farm linkages in Tigray, Ethiopia, are broader and at sectoral rather than commodity level. All the case studies fit within the framework outlined in Chapter 1, which turns out to be surprisingly adaptable.

The proposals for NGO and government policies are the usual suggestions about facilitation in imperfect markets, provision of information, providing an appropriate institutional framework for agro-industrial investment and the like. A new wrinkle is that since forging of most new linkages is by agribusiness firms, governments might encourage such 'forging' by smallholders themselves by sponsoring grower groups. The grower-group idea, not unique to this book and never well argued, is basically an attempt to address market failure through horizontal integration. As such, it is a return to the co-op policy mentality of the past and belies improved understanding of the role of vertical and partial-vertical integration in increasing factor efficiency. Having worked in this area, I concede it is hard to come up with new ideas about special roles for NGOs and government in facilitating new agricultural markets. New types of contractual arrangements resulting from market forces tend to fix, or at least ameliorate, market failures. For example, a contracting agribusiness firm may offer smallholders credit allowing them to overcome credit constraints, provide them with technical information that they normally would not have access to or provide on-farm work opportunities for family members when transaction costs in the labour market make off-farm work impossible. Also, most developing country governments these days are already trying hard to get the macro settings right for foreign and local investment in agro-industry.

The book will be relevant to anyone working in alleviating poverty amongst smallholders in developing countries. It deals squarely with the problem that, in the past, consideration of poverty was often too narrow, too focused on farm level issues and often ignored the implications of interventions for the non-farm rural sector. In dealing with that narrowness, the book provides a well thought out synthesis of ideas for taking a broader view and a coherent and robust framework. Finally, the book is well written, thankfully free of jargon and would be accessible to anyone with economic, scientific or sociological training.

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The Environment in Corporate Management: New Directions and Economic Insights, by Jean Baptiste Lesourd and Steven Schilizzi. Published by Edward Elgar, Cheltenham, Gloucestershire, UK, 2002, pp. xx + 400, ISBN 1 85898 916 7 (hdbk), £75.00.

This is a very good book that is unlikely to find much of a market. Its problem from a marketing perspective is that it has a strong microeconomics basis, and actually places little emphasis on the corporate management aspects of its title. As such, it is a good resource book for graduate-level courses (I used it as such in my Master of Sustainable Management course), but it is unlikely to become a frontline text or be particularly useful to researchers either in economics or management.

The book has two sections. Chapters 1–3, and 10 set out the principles for attending to the environment in corporate management, and the remaining six chapters are each an application in a particular area with case-study examples. Chapter 3 on business ethics is particularly valuable, and here, as elsewhere in the book, the wealth of reference material recommends itself to the serious reader.

Chapters 4–6 cover the finance functions: environmental accounting, environmental reporting and auditing, and corporate finance in an environmental context. After reading the very thorough material on corporate accounting, the material on auditing and finance was most disappointing. This is the weakest part of the book.

Chapter 7 is titled: 'The management of environmental risks'. The criticism I would make here is that the title should have included the word 'insurance', because this is largely what the chapter is about. Apart from this, the material is well written from a microeconomics perspective, and extremely useful as a basis for considering insurance for environmental risks.

Chapter 8 contains good factual material on environmental management systems and ISO14001. As such, it is useful source chapter on issues to do with quality improvement related to the environment. In considering issues like the Deming cycle and continuous improvement in quality this is the area of the book that gets closest to management.

In Chapter 9, eco-marketing is considered. This chapter is an introduction to the market returns that can flow as a consequence of developing the quality systems discussed in the previous chapter. Again the material is presented in a most methodical manner, starting from principles like the classification of the quality attributes of goods applied to environmental qualities and moving through labelling principles, labelling practice in different countries, and cradle-to-grave design and supply chain management. The Volvo case presented at the conclusion of this chapter will be especially useful to management students. Indeed, the case material presented through-out the book is extremely valuable.

Finally, the book concludes with a chapter on lessons learned. This is to an extent a review of the book from the authors' point of view. The following quote gives an insight into both the content of the book and its style of approach.

> '… this book suggests four strategies by which firms may gradually be enticed to jointly account for the three dimensions of SD [sustainable development] and improve them over time:
>
> 1. harness the market mechanism (for goods and services) and make it work efficiently;
> 2. harness financial markets and make them work efficiently;
> 3. harness risk-management tools and make them work efficiently.
>
> The fourth strategy is subservient to these three
>
> 4. generate and use an efficient information system for ecological and environmentally induced financial impacts.' (pp. 386–387)

Overall, this is a useful resource book. I would like to think that it could find its place in advanced courses in corporate management. My doubt about this is more related to the limited horizons in many university management degree programs than to the quality of the book.

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Taken by Storm: The Troubled Science, Policy and Politics of Global Warming, by Christopher Essex and Ross McKitrick. Published by Key Porter, Toronto, 2002, pp. 320, ISBN 1 55263 212 1, $US19.95

Essex and McKitrick have written a remarkable book. For one thing, they set out to slaughter every sacred cow in the global warming herd. Most readers will be astonished by the information and arguments they present. Even readers who are not convinced will surely be affected by the most troubling doubts about what they thought they knew or believed. For another thing, the book combines humour and serious intellectual issues more successfully than any other I have ever read. I must admit, I did not think so at first. Early in the book, when the ideas were still sinking in, the style seemed a bit too smug. But soon their razor sharp wit seemed more than appropriate to the subject. I laughed out loud more times than for most books that are only meant to be funny. Clearly, the authors held no

hopes of persuading those who are strongly committed to the conventional wisdom on global warming, so they decided to have fun.

But they are deadly serious in their intent. They set out a 'Doctrine of Certainty', consisting of familiar assertions that are to be accepted without question, because, as the Doctrine's supporters say, 'The time for questioning is over.' The Doctrine is:

1. The earth is warming.
2. Warming has already been observed.
3. Humans are causing it.
4. All but a handful of scientists on the fringe believe it.
5. Warming is bad.
6. Action is required immediately.
7. Any action is better than none.
8. [Expressions of] uncertainty [about the science] only cover the ulterior motives of individuals aiming to stop needed action.
9. Those who defend uncertainty are bad people.

In summary, the message of the book is, 'The Doctrine is not true. Each assertion is either manifestly false or the claim to know it is false. They argue that the degree of certainty expressed about points 1–7 by the United Nation's Intergovernmental Panel on Climate Change (IPCC) (and many others) is completely unjustified – that all of these propositions are affected, at best, by the deepest uncertainty or, at worst, by a complete absence of theoretical understanding that we would need to be able to meaningfully test them. I can give only a very brief outline of their arguments. (Essex and McKitrick comment that, 'we ought to stop relying on quick summaries and actually take the time to think through this issue carefully.') But to entice you to read the full version, here are some of the things they say.

Essex and McKitrick note that climate is chaotic, and emphasise that this effectively rules out long-term prediction of its behaviour or attribution of causes for any observed change. (This is more or less acknowledged in IPCC Third Assessment Report, Chapter 14.2.2.2.) It is impossible to know what the climate would have done in the absence of rising CO_2 levels, and in particular, there is no reason to expect that temperatures would have remained stable (as normally assumed). Historically, they have not done so. Our ignorance is such that we can claim no knowledge of what effects would result from moderating CO_2 emissions. It might increase the frequency of adverse climatic outcomes.

They discuss at length the misuse of computer climate models. There is no 'theory of climate', so climate models rely, at best, on empirical parameterisations of fundamental processes. As such they cannot reliably predict

far into the future. Discrepancies between climate model predictions and observed data (such as the absence of projected warming at the South Pole) are common, but should not be considered remarkable.

They criticise the focus on so-called 'global temperature'. Essex and McKitrick explain that oceanic and atmospheric temperatures form a continuous field, and that there is no physically based rule for reducing them to a global average. As such the average has no physical meaning, and may have no relationship to climate outcomes, adverse or otherwise. Climatic disasters might increase without any change in the global average temperature. Different, equally valid/invalid ways of summarising the same data could give contrary results. Even if one accepts the existing practice of taking averages, there are four sources of data for the averages (surface thermometers, satellites, balloon-borne instruments and proxies such as tree ring widths) and evidence from these is mixed.

The focus on CO_2 is also questioned. Global climate models indicate that if CO_2 is the culprit behind global warming, then the average temperature estimated from satellite measurements ought to be going up at least as fast as ground readings, but it has not been rising at all, apart from the once-off Pacific Climate Shift in 1976–1977. There are numerous other factors that may influence warming, but most of them are even less well understood than CO_2 (e.g., soot, dust, biomass burning, changes in the amount of light reflected following changed land use, solar activity). However, water vapour is known to be much more important than CO_2 in infrared absorption, but this seems to be played down in the public discussion. For example, a prominent IPCC figure indicating the various causes of warming focuses on 'external factors' and so omits water vapour. Essex and McKitrick quip that 'leaving water vapour off the list … is like describing the PC software industry and leaving out Microsoft'.

The estimation of adverse impacts from global warming is based on projections and assumptions of the flimsiest basis, and is biased towards the sensational. Even 'low end' scenarios used by the IPCC are high compared to historical and current trends (a point also made by Castles and Henderson (2003) in a study highlighted in *The Economist* of 6 November 2003).

The IPCC has been cavalier and misleading in exploiting adverse events to promote its agenda (e.g., attributing glacier melt in the Himalayas to global warming, and using this to promote CO_2 cutbacks, when in fact the trend of air temperatures in the Himalayas has shown no warming).

The IPCC's own modelling indicates that the Kyoto protocol, even if fully implemented and effectively enforced would achieve almost nothing. In any case, there are great doubts about compliance because of the large incentives for countries to cheat the Kyoto system, and the fact that countries would be responsible for auditing their own emissions and sinks.

Kyoto would fail a Benefit–Cost Analysis. It is often argued that Kyoto is only the start of something, and that the full-scale version will be much better. However, given the likelihood that scaling up the accord would result in increasing marginal costs and decreasing marginal benefits, a larger response would be even less attractive – indeed, disproportionately so.

To me, this seems to be the key point. I am not in a position to judge whether all of the authors' physical science is sound, but arguments about it seem of secondary importance when the IPCC's projections, placed into an economic framework, do not support the policy response being advocated (i.e., Kyoto). The policy approach that is preferred by Essex and McKitrick is to wait and see and adapt if necessary. This is consistent with their arguments, although I would also seek to exploit zero-cost CO_2 abatement opportunities where these can be identified, or to create them through R&D (e.g., into improved renewable energy technologies).

Items 8 and 9 of the Doctrine relate to the tendency for people to marginalise and disparage views with which they are not comfortable, even within scientific circles. I was reminded of the personal vilification and misrepresentation that dominated the public responses by many scientists to Bjorn Lomborg's book *The Skeptical Environmentalist*. In the course of their critique, Essex and McKitrick provide examples where critics of the official position on global warming have been subjected to questioning of motives, associations or credentials, and a variety of other adverse responses ranging up to dismissal as crackpots, in place of analysis of their arguments. Their observation is that, 'Global warming ceased to be a subject of scientific debate years ago. The critique of the technical issues in *Taken by Storm* begs at least two questions: If the authors are right, how did we come to accept such an indefensible series of propositions as are embodied in the Doctrine? And what, if anything, can we do to reduce the chances of it happening again? The authors observe that answering these questions is even more difficult than debunking the Doctrine, but they make a thoughtful attempt. In relation to the first question, they do not attribute it to any conspiracy theory, just the natural consequences of some aspects of human nature and institutions. Lindzen (1996) discusses this issue at some length, making interesting comparisons between current global warming concerns and the now infamous eugenics movement of the early 20th century. Essex and McKitrick propose an interesting alternative framework for science to interface with policy.

Overall, the book makes an important contribution to clarifying what the complexities and uncertainties of global warming are and should help us to make a more reasonable and balanced response to the issue. It also provides some salutary lessons about policy making for complex environmental issues, especially for the role of science in informing policy. Essex

and McKitrick emphasise that good science is crucial. But ironically, if it becomes widely accepted that their arguments in this book are right, then the IPCC's actions could cause enormous damage to the public credibility of all science.

References

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Climate Change Policy after Kyoto: Blueprint for a Realistic Approach, by Warwick J. McKibbin and Peter J. Wilcoxen. Published by The Brookings Institution, Washington, DC, USA, 2002, pp. x + 133, ISBN 0 8157 0607 3, $US19.95.

This is a concise and readable book that proposes, explains and promotes an alternative policy approach to global warming that is intended to replace the Kyoto Protocol. The authors are highly critical of the Kyoto Protocol, arguing that it 'is very strict in theory, but completely ineffective in practice'. Their proposed alternative is a 'hybrid' policy, combining features of pollution taxes and tradable pollution permits in a way designed to capture the advantages of each.

After previewing their proposed approach in the first chapter, the authors spend several chapters providing the necessary background and context to understand why it would be superior to the Kyoto Protocol. They start with a brief outline of the science of global warming. Compared to some critics (e.g., Essex & McKitrick 2002) they appear less doubtful about the modelling results, the scenarios and the arguments presented by many scientist advocates for action, including the United Nations Intergovernmental Panel on Climate Change (IPCC). However, McKibbin and Wilcoxen very effectively portray the uncertainties inherent in making projections about global warming and its impacts, and they note that there is no reason to believe that the uncertainties will be reduced very much in the near future.

The compounding uncertainties are daunting. There is uncertainty about economic growth and technological change over the coming century. Even if we could predict them, there would still be considerable uncertainty about carbon emissions. Even if we could predict carbon emissions, there would still be uncertainty about average temperatures. Even if we could predict average temperatures, there would still be uncertainty about adverse climate outcomes and their spatial distribution. Even if we could predict climate outcomes, there would still be considerable uncertainty about their economic, social and environmental significance. Overlying all that is uncertainty about the costs and consequences of proposed policy interventions.

The authors make it clear that the best available information is actually rather weak, and argue that the inherent high levels of uncertainty throughout this chain need to be factored into the consideration of policy options, particularly if they involve high costs. Nevertheless, they believe that the evidence is sufficient to justify a moderate effort to slow the growth of greenhouse gas emissions. Their alternative policy approach is designed to result in a moderate effort.

McKibbin and Wilcoxen provide some interesting historical background on international climate negotiations and the development of the Kyoto Protocol. They argue that the failure of the USA to ratify the Protocol is predictable and a consequence of its design. The basic reason is its specification of strict targets under conditions of great uncertainty about abatement costs. Prudent politicians cannot sign on to a commitment of unknown (but possibly massive) cost, for which the most likely outcome is only a small benefit. The Kyoto system of internationally traded emission permits would also result in enormous transfers of wealth between countries (sufficient to significantly influence exchange rates) and introduce extreme political tensions among those countries that are in the position of needing to buy permits, notably the USA. Overall, McKibbin and Wilcoxen believe that the Kyoto Protocol 'is economically flawed and politically unrealistic'.

As noted, their preferred alternative is a hybrid system. Perpetual (or at least long-term) emission permits would be distributed within countries according to internationally agreed levels, and then trade in these permits would be allowed within each country but not between countries. For emissions beyond these levels, each government would sell short-term permits to its own businesses and citizens at an internationally agreed price, the same for all countries. There would be no limit on the supply of these short-term permits, so they effectively operate as a pollution tax at the margin. The authors suggest a modest tax of $US10 per ton of carbon or equivalent.

Advantages of the proposed hybrid system include that the cost is predictable, modest and capped, that the system can be implemented unilaterally by countries, that entry or exit of countries does not require complex

international negotiations, that individual governments would have incentives to monitor and enforce compliance within their own country, that owners of perpetual permits have a commitment to the continuation of the system and to its proper enforcement, that equity issues are manageable and that it does not involve international transfers of capital.

If one accepts the authors' position that it is sensible to take modest steps to abate greenhouse gases, then their proposed policy approach is an attractive one. Their argument that it would be far more likely to be implemented than the Kyoto Protocol is convincing.

However, I was not persuaded by the argument that it is better to implement a relatively modest program of economic policy instruments, rather than none, in this context. The IPCC's own projections of the impact of the Kyoto Protocol, assuming that it is fully implemented and effectively enforced, are that it would achieve very little in terms of moderating temperature rises – just a delay of a few years. Given the low pollution tax rate proposed by McKibbin and Wilcoxen and the much higher abatement costs estimated in the studies that they quote, it seems that the positive outcomes of their policy would be somewhat less than the very little predicted for the Kyoto Protocol. One could speculate that the benefits might not even exceed the transaction costs of the system.

Overall, I was less convinced by the proposal than by the arguments of Essex and McKitrick (2002) that we should rely on the capacity of humanity to adapt and cope if and when adverse changes are experienced, or the proposal of Lomborg (2001) that efforts should be focused on R&D to accelerate development of cheaper renewable energy technologies, rather than on economic instruments directly targeting emissions. Perhaps an argument in favour of the McKibbin and Wilcoxen proposal is that it might prove to be a relatively cheap option that is acceptable to policy makers as a substitute for the Kyoto Protocol, and so has benefits in the sense of wasting money wisely (e.g., Watson 2001).

Overall *Climate Change Policy after Kyoto* is an interesting, accessible and laudable attempt to introduce economic sense and prudence into an international policy realm where it has been greatly needed. It would be easily understandable to readers who have studied economics at an introductory level. As well as integrating and summarising the authors' extensive work on climate change policy, the book provides a useful and understandable introduction to the issue and the Kyoto Protocol.

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